

## 1 CLAIMS

- 2 1. An inkjet cartridge refurbishing system including:
- 3 (a) a pump assembly having an ink intake, an ink outlet, and a control input,
- 4 the ink outlet being connected to a proximal end of a supply conduit; and
- 5 (b) a fill gun having a fill needle, a handle connected to the fill needle, and a
- 6 fill trigger switch provided on the handle, the fill needle being connected
- 7 to receive fluid directed through the supply conduit, and the fill trigger
- 8 switch being operatively connected to the control input so as to selectively
- 9 apply a control signal to the control input.
- 10
- 11 2. The inkjet cartridge refurbishing system of Claim 1 further including a kill switch
- 12 located on the fill gun and operatively connected to the pump assembly, the kill
- 13 switch being operable to selectively deactivate the pump assembly from pumping
- 14 ink through the supply conduit to the fill needle.
- 15
- 16 3. The inkjet cartridge refurbishing system of Claim 2 wherein the kill switch is
- 17 located on the handle on a side substantially opposite of the fill trigger switch.
- 18
- 19 4. The inkjet cartridge refurbishing system of Claim 1 wherein the handle includes a
- 20 grip portion extending transverse to a longitudinal axis of the fill needle, and
- 21 wherein the fill trigger switch is located adjacent to a leading edge of the grip
- 22 portion.
- 23

- 1     5.     The inkjet cartridge refurbishing system of Claim 1 further including an auto-  
2           cutoff device being operable to automatically deactivate the pump assembly.  
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- 4     6.     The inkjet cartridge refurbishing system of Claim 5 wherein the auto-cutoff device  
5           includes a timer and wherein the auto-cutoff device is operable to automatically  
6           deactivate the pump assembly after a set period of operation measured by the  
7           timer.  
8
- 9     7.     The inkjet cartridge refurbishing system of Claim 1 further including:  
10          (a)     a housing having the pump assembly mounted in an interior thereof; and  
11          (b)     a fill gun holster mounted on an exterior of the housing.  
12
- 13    8.     The inkjet cartridge refurbishing system of Claim 7 wherein the supply conduit  
14           extends from the housing to a supply conduit fitting on the handle of the fill gun.  
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- 16    9.     The inkjet cartridge refurbishing system of Claim 1 wherein the pump assembly is  
17           a peristaltic pump assembly.  
18
- 19    10.    A method of refurbishing an inkjet cartridge, the method including the steps of:  
20          (a)     inserting a fill needle of a fill gun into the inkjet cartridge;  
21          (b)     activating a fill trigger switch on the fill gun to activate a pump assembly  
22                  to transfer ink from an ink intake line to the fill needle and into the inkjet  
23                  cartridge; and

1           (c)     deactivating the pump assembly.

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3    11.    The method of Claim 10 further including the steps of:

4           (a)     detecting a configuration error;

5           (b)     responsive to the configuration error, actuating a kill switch on the fill gun

6                 to deactivate the pump assembly.

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8    12.    The method of Claim 10 further including the step of setting an auto-cutoff device

9           to deactivate the pump assembly after a desired volume has been pumped.

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11   13.    The method of Claim 10 further including the step of inserting the ink intake line

12           into a cleaner fluid supply prior to activating the pump assembly.

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14   14.    The method of Claim 13 further including the step of withdrawing the ink intake

15           line from the cleaner fluid supply and inserting the ink intake line into an ink

16           supply.

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18   15.    An inkjet cartridge fill gun including:

19           (a)     a fill needle;

20           (b)     an ink supply fitting arrangement connected to the fill needle to enable the

21                 fill needle to be connected to receive a flow of ink from an ink supply

22                 conduit;

23           (c)     a handle connected to the fill needle; and

- 1 (d) a fill trigger switch provided on the handle, the fill trigger switch being  
2 operable when activated to initiate a pump assembly control signal.  
3
- 4 16. The inkjet cartridge fill gun of Claim 15 wherein the handle includes a grip  
5 portion extending transverse to a longitudinal axis of the fill needle and the fill  
6 trigger switch is located adjacent to a leading edge of the grip portion.  
7
- 8 17. The inkjet cartridge fill gun of Claim 15 further including a kill switch located on  
9 the fill gun, the kill switch being selectively operable initiate a kill signal that may  
10 be used to stop a flow of ink through the ink supply conduit to the fill needle.  
11
- 12 18. The inkjet cartridge fill gun of Claim 17 wherein the kill switch is located on a  
13 side of the handle opposite from the fill trigger switch.  
14
- 15 19. The fill gun of Claim 15 further including a needle exchange fitting between the  
16 fill needle and the ink supply fitting arrangement, the needle exchange fitting  
17 being configured to allow removal and replacement of the fill needle.  
18
- 19 20. The fill gun of Claim 15 wherein the ink supply fitting arrangement includes a  
20 check valve operable to prevent a reverse flow of ink in direction from the fill  
21 needle to the ink supply conduit.